	Application No.	Applicant(s)
Notice of Allowability	10/661,907	KLOTZ ET AL.
	Examiner	Art Unit	
	AJIT G. PATEL	2616	

*-- The **MAILING DATE** of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *9/12/2003*.

2. ☒ The allowed claim(s) is/are *1-7,9,10,12-16,18-20 renumbered 8-17 respectively*.

Ajit Patel
Ajit Patel
Primary Examiner

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

        Authorization for this examiner's amendment was given in a telephone interview

with Mr. J. Gadd on 8/20/07.

2.   The application has been amended as follows: The claims are amended as

follows:

        1.   A scalable method for analyzing a network, comprising:
        generating a data trace representative of the network;
        determining a topology for the network ~~from~~ <u>by analyzing a sequence of
data in</u> the data trace; ~~and~~
        sequentially analyzing each <u>multilayer protocol</u> frame in the data trace to
determine at least one of network errors, warnings, and metrics, the analysis of
each <u>multilayer protocol</u> frame comprising:
                analyzing a first protocol layer of the <u>multilayer protocol</u> frame with
        a first expert engine;
                determining if a second protocol layer is present in the <u>multilayer
        protocol</u> frame;
                passing the <u>multilayer protocol</u> frame to a second expert engine;
        and
                passing the <u>multilayer protocol</u> frame to additional expert engines if
        the <u>multilayer protocol</u> frame contains additional protocol layers<u>, and</u>
                <u>identifying the location of the at least one of network errors, warnings, and
        metrics in the topology for the network</u>.

4.   The method of claim 3, wherein each expert engine is configured to analyze a protocol layer for at least one of errors, warnings, and metrics, and then pass the multilayer protocol frame onto other engines for analysis of additional protocol layers in the multilayer protocol frame.

7.   A method for analyzing a network, comprising:

~~determining a topology of the network;~~

capturing a data trace representative of network operation;

determining a topology for the network by analyzing a sequence of data in the data trace;

parsing through the data trace on a frame by frame basis; ~~and~~

analyzing each protocol layer of each multilayer protocol frame for errors using a protocol specific engine to analyze each protocol layer of each multilayer protocol frame, wherein analyzing further comprises:

        a) analyzing a first protocol layer of the multilayer protocol frame with a first protocol engine specifically configured to analyze the first protocol layer to determine errors for the first protocol layer;

        b) determining if the multilayer protocol frame has additional protocol layers; and

        passing the multilayer protocol frame to a second protocol engine specifically configured to analyze the second protocol layer for errors if additional protocol layers are determined, and

        identifying the location of the errors in the topology for the network.

The claim 8 has been canceled.

9.   The method of claim [[8]] 7, further comprising repeating steps (a) and (b) for additional protocols until each protocol of the multilayer protocol frame has been processed.

10.   The method of claim [[8]] 7, wherein each protocol engine is configured to analyze a specific protocol layer regardless of the data format origin.

The claim 11 has been canceled.

13.   The method of claim 7, wherein determining the topology further comprises analyzing the data trace for indicators of devices on the network.

16.   A method for analyzing a network having multilayer protocol frames, comprising:

capturing a data trace from the network;

determining a topology of the network ~~from~~ by analyzing a sequence of data in the data trace;

stepping through each multilayer protocol frame in the data trace to determine errors at each level of the multilayer protocol frame, wherein stepping through each multilayer protocol frame in the data trace comprises:

parsing a first protocol layer from the multilayer protocol frame;

analyzing the first protocol layer for errors using a first protocol layer expert engine;

storing errors determined by the first protocol engine;

determining if the multilayer protocol frame contains additional protocols;

passing the multilayer protocol frame to a second protocol engine if the multilayer protocol frame is determined to contain additional protocols;

parsing a second protocol layer from the multilayer protocol frame for processing by the second protocol engine;

and analyzing the multilayer protocol frame with the second protocol engine to determine errors in the second protocol layer; and

presenting the determined and the location of the errors in the topology for the network errors to a user via a graphical interface.

The claim 17 has been canceled.

18.   The method of claim [[17]] 16, further comprising repeating the analyzing and passing steps until each protocol layer of the multilayer protocol frame has been analyzed.

19.   The method of claim [[17]] 16, wherein each protocol layer may originate from various data sources and protocols.

20.   The method of claim [[17]] 16, wherein the analyzing steps include using the determined network topology.

3.   The following is an examiner's statement of reasons for allowance: The prior art of the record fails to disclose determining a topology for the network by analyzing a sequence of data in the data trace;

  parsing through the data trace on a frame by frame basis; and

  analyzing each protocol layer of each multilayer protocol frame for errors using a protocol specific engine to analyze each protocol layer of each multilayer protocol frame, wherein analyzing further comprises:

   a) analyzing a first protocol layer of the multilayer protocol frame with a first protocol engine specifically configured to analyze the first protocol layer to determine errors for the first protocol layer;

   b) determining if the multilayer protocol frame has additional protocol layers; and

   passing the multilayer protocol frame to a second protocol engine specifically configured to analyze the second protocol layer for errors if additional protocol layers are determined, and

  identifying the location of the errors in the topology for the network .

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJIT G. PATEL whose telephone number is 571-272-3140. The examiner can normally be reached on MONDAY- FRIDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AP

Ajit Patel
Primary Examiner